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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/595,674

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Nathaniel Sims

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EXAMINER

NATNITHADHA, NAVIN

ART UNIT

PAPER NUMBER

3735

MAIL DATE

DELIVERY MODE

04/28/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/595,674	Applicant(s) SIMS ET AL.	
	Examiner NAVIN NATNITHITHADHA	Art Unit 3735	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 and 31-45 is/are pending in the application.
- 4a) Of the above claim(s) 22-26 and 31-45 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>20071001</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Preliminary Amendment

1. According to the Amendment, filed 03 May 2006, the status of the claims is as follows:

Claims 1-26 and 31-45 are as originally filed; and

Claims 27-30 and 46-96 are cancelled.

Election/Restrictions

2. Applicant's election without traverse of Group I, claims 1-21, in the reply filed on 06 April 2010 is acknowledged.

Claims 22-26 and 31-45 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

This application contains claims 22-26 and 31-45 are drawn to an invention nonelected without traverse filed on 06 April 2010. A complete reply to the Final Rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-21 are rejected under 35 U.S.C. 102(b) as being anticipated by New, Jr., et al, U.S. Patent Application Publication No. 2001/0047127 A1 ("New").

As to Claim 1, New teaches the following:

An apparatus for transmitting information on the physical status of a subject (see Abstract and figs. 1-4) comprising:

a carrier 10 for sensors ("array of sensors" or "physiological bend sensor") 10a/42 arranged to be worn by the subject for providing electrical signals representative of physical parameters of the subject (see para. 39), and

electronics ("printed circuit board", which includes "application specific integrated circuit (ASIC)", see para. 36) 46 to receive the electrical signals from the sensors 10a/42 (see para. 41), and to process the signals at the location of the subject (see para. 36),

said sensors 42 including one or more respiration motion sensors (see para. 40) comprising a flexible strip ("flexible web", see para. 40) 28 having a first conductive lead (not labeled, "strip of conductive material such as ink", see para. 40) connecting to an area of resistive material whose electrical resistance varies as the strip 28 is flexed (see para. 40 and 53-54).

As to Claims 2 and 3, New teaches the following:

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wherein the flexible strip 28 is a film (“ink”, see para. 40) laminated to a stiffer base layer (“web”) comprising an arched portion (see fig. 3), wherein the area of resistive material is located on the arched portion (see fig. 3), wherein the film strip and base layer are formed so that the portion of the strip containing the resistive material is shaped into an arch (see fig. 3).

As to Claim 4, New teaches the following:

wherein the flexible strip 28 is a film laminated to the stiffer base layer using a flexible adhesive (see para. 40).

As to Claim 5, New teaches the following:

wherein the area of resistive material is less than half a square centimeter (see fig. 3).

As to Claim 6, New teaches the following:

wherein the area of resistive material has a rectangular shape with an upper surface area less than half a square centimeter.

As to Claim 7, New teaches the following:

wherein the strip 28 has ends that are substantially flat (see fig. 3).

As to Claims 8-12, New teaches the following:

wherein the carrier 10 further comprises a central housing 26 for the electronics, two extensions 20 and 22 from the central housing 26 carrying external sensors, and a harness (“attached to the chest of a human subject or patient S”, see para. 35), wherein the harness is configured to position the housing approximately over the subject's solar plexus (see para. 35 and fig. 1), wherein the harness has an elastic portion and

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comprises a first strap that passes around the subject's back and a second strap that passes over the left shoulder (see para. 35 and fig. 1), wherein the two extensions extend from the sides of the housing and are connected to the first strap of the harness (see para. 35 and fig. 1), wherein the straps of the harness have adjustable lengths to allow fitting to different users (see para. 35 and fig. 1).

As to Claim 13, New teaches the following:

electrical contacts (“conductive tracks”) 48 on the flexible strip 28 for connection with the electronics 46 and a second conductive lead on the flexible strip 28 joined to the first conductive lead at the end of the sensor 42 opposite the contacts (see para. 41 and fig. 3), electrical contacts 48 and having improved electromagnetic interference rejection comprising a third conductive lead on the flexible strip 28, said second and third conductive leads located on opposite sides of the first conductive lead, and the three conductive leads joined at an end opposite the contacts 48 (see fig. 3).

As to Claims 15 and 16, New teaches the following:

a cover sheet (“metal”) overlaying the resistive material or adhered to the resistive material (see para. 40).

As to Claim 17, New teaches the following:

a voltage divider circuit (“potential divider”) having two resistors in which one of the resistors comprises the area of resistive material (see para. 53-54).

As to Claim 18, New teaches the following:

a decoupling circuit 59 so that an output signal from the respiration motion sensor 42 is proportional to changes in resistance of the area of resistive material (see para. 41).

As to Claim 19, New teaches the following:

wherein the resistance of the area of resistive material increases as the arched portion of the strip is flexed convexly (see para. 40).

As to Claims 20 and 21, New teaches the following:

wherein the respiration sensor 42 comprises a second flexible strip having a second area of resistive material, wherein the two flexible strips are back-to-back on a single base layer (see para. 40), wherein the two areas of resistive material are in series and connected between fixed voltages, thus creating a voltage divider (see para. 40).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The other patents cited in the PTO-892 teach subject matter related to the Applicant's claims. The Examiner suggests reviewing these patents before responding to the present Office Action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NAVIN NATNITHITHADHA whose telephone number is (571)272-4732. The examiner can normally be reached on Monday-Friday, 9:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor, II can be reached on (571) 272-4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Navin Natnithithadha/
Patent Examiner, Art Unit 3735
04/26/2010